30743
S/535/60/000/125/004/008

Investigation of a slow-wave system ...   E133/E162

and the results on seven models produced. The effects of varying
the various dimensions are demonstrated. The field distribution
and the effects of connecting the fins to the walls of the wave-
guide are investigated. Finally, the higher modes which are
possible in the system are considered and investigated experimen-
tally. The longitudinal components of the electric field of the
fundamental synphase wave are shown in Fig.1. Theoretical
determination of the retardation factor and of the coupling
impedance is difficult, due to the complex geometry which is
specified by five independent dimensions: a, b, g_E, g_H, d,
and also by the period of the structure T and the fin thickness
t.   The effects of g_E and g_H can be estimated by the
relationships developed by L.N. Deryugin and N.V. Trunova (Ref.2:
Radiotekhnika, 1959, No.3) and the effect of increasing d is to
increase the retardation and to decrease the coupling impedance.
T affects these parameters only when it is near to $\lambda_z/2$ in
value. For experimental investigation, seven θ-system models were
prepared. The models were approximately square in cross-section
(b/a = 0.925) and the dimensions of all the models are tabulated
(see Table 1).   The dispersion characteristics of the θ-system -
Card 2/

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Investigation of a slow-wave system... S/535/60/000/125/004/008
E133/E162

the retardation factor and the coupling impedance - were obtained
by the resonance method, using the models. The construction of
the models, the experimental set-up and procedure are detailed.
The error in measurement of the retardation factor is estimated at
not more than 5% and that for the coupling impedance not more than
20%. The three experimental dispersion curves for models 2 ,
which differ only in their d dimension, are compared with the
theoretical curve for a three-channel system with the same g_E, g_H
and b, but without side walls (a = ∞), and show that increasing
d moves the curve towards the low-frequency side. The experimen-
tal dispersion curves for the first four models (which have
constant g_H and d dimensions, but different g_E dimensions)
show that reduction of g_E leads to a small displacement of the
curves towards the high-frequency side, but has little effect on
the slope. The experimental dispersion curves for models 2 and 5
(which have constant g_E and d dimensions, but different g_H)
show that increase of g_H moves the dispersion curve towards the
high-frequency side. The relative frequency bandwidth, correspon-
ding to a change in the retardation factor from 4 to 7, was

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Investigation of a slow-wave system...   S/535/60/000/125/004/008
E133/E162

10-15% for all the models.   Curves of the coupling impedance (at
the axis of the θ-system) versus the electrical depth of the
channels with: (a) g_H constant, g_E varied, and (b) g_E
constant, g_H varied) are produced.   Investigation of the field
distribution showed the presence of two symmetrically disposed
nodal lines of the electric field in the channel between the gaps
g_E and g_H.   The positions of these lines were investigated.
Systems with different values of T were compared, and the
results show that, except when T lies between $1/4\lambda_z$ and $1/2\lambda_z$,
its value has little effect on the characteristics of the system.
The effect of connecting the fins to the waveguide walls was
investigated.   It was established experimentally that the presence
of four metallic connections placed symmetrically at the nodes of
the electric field did not change the field distribution of the
fundamental synphase wave.   Their effect on the dispersion curves
was also investigated.   Finally, the retarded and accelerated
waves and fields, corresponding to E_{110}, E_{210}, E_{120} and E_{220}
modes in rectangular resonators were investigated.   The electric
field distributions obtained experimentally are shown
diagrammatically, and the results discussed.
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Investigation of a slow-wave system ...   30743
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E133/E162

M.S. Neyman is mentioned in the article.   There are 22 figures,
1 table and 3 Soviet-bloc references.

Table 1

Model number	$g_H \rvert b$	$g_E \rvert b$	$g_H \rvert h$	$g_E \rvert h$	d/a
1	0.011	0.054	0.025	0.12	0.01
2a	0.011	0.027	0.023	0.058	0
2b	0.011	0.027	0.023	0.058	0.01
2c	0.011	0.027	0.023	0.058	0.03
3	0.011	0.018	0.023	0.038	0.01
4	0.011	0.009	0.023	0.019	0.01
5	0.032	0.027	0.074	0.061	0.03

Card 5/6

S/535/60/000/125/005/008
E025/E335

9, 2590

AUTHORS: Voskresenskiy, D.I., Granovskaya, R.A. and Deryugin, L.N.

TITLE: Investigation of delay systems of the interdigital type

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960. Elektromagnitnyye zamedlyayushchiye sistemy; metodika izmereniya elektricheskikh kharakteristik. 67 - 91

TEXT: An experimental study was made of interdigital delay structures, using the resonance-model method. The dispersion curves were obtained by determining the resonant frequencies of models of short-circuited lengths of the structure. The distribution of the fields and the coupling impedances of the harmonics were measured on the same models by the absorption (perturbation) method. The experimental model contained six periods of the structure enabling measurements to be made at seven points in the first passband and at six points in the next passband. These readings suffice for the construction of curves of delay and coupling impedance versus frequency. The use of six

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Investigation of delay systems... E025/E335

periods gives sufficient sensitivity for the absorption method.
Two models of the delay structure each with a Q of 2000 but
differing in their relative dimensions were used. The electrical
height of the system is given in a table for both models in the
first and second passbands. Dispersion curves are given for both
models showing the delay of the phase velocity of the fundamental,
first positive and first negative harmonic. Curves given for the
delay of higher harmonics and for the delay of the group velocity
as a function of the wavelength in free space were calculated
from these results. The distribution of the longitudinal field
was measured by driving the model by a capacitative projection
at one end-wall, the detector head at the other end-wall having
the same capacitative coupling. The absorbing element was moved
along the axis of the model by a system of rollers and thread.
The absorbing element is described; its anisotropy had the
values $\mu_z/\mu_y = 20$, $\mu_z/\mu_x = 15$ (μ is the absorption coefficient
in the given direction). A diagram shows the idealized
distribution of the longitudinal field; the possible field
distributions for various amplitudes of the first three

Card 2/3

30744
S/535/60/000/125/006/008
E033/E362

9.1300

AUTHORS: Voskresenskiy, D.I. and Granovskaya, R.A.

TITLE: Investigation of a single-start spiral in a circular
            waveguide

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960.
            Elektromagnitnyye zamedlyayushchiye sistemy; metodika
            izmereniya elektricheskikh kharakteristik. 92 - 97

TEXT: The dispersion properties and coupling impedance of a
spiral located in a circular waveguide were investigated by using
a resonance model (Fig. la). The length of the model was
sufficient to obtain different harmonics and fixed-end walls
ensured a high Q-factor of the order of 1500. The absorbing
element was introduced into the waveguide via apertures and hence
the field distribution was obtainable. The end walls created a
mirror image giving a spiral of reverse direction and, strictly
speaking, the field in the resonance model was not exactly
identical to the standing-wave pattern in an infinitely long
waveguide. However, the approximation improved with distance
from the end walls and, therefore, the coupling impedance and
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E033/E362

Investigation of ....

dispersion were measured at points distant from the end walls and with high harmonics. The method and block-schematic were basically as described in other articles of the same symposium. The model had the following dimensions: $R/r_o = 2$; $a_o/r_o = 0.143$; $a_o/h = 0.276$. By determining the number of semi-waves at a given resonant frequency and knowing the geometric length of the model, the retardation $\gamma = c/\lambda_z f_p$ (c - velocity of light, f_p - resonant frequency, λ_z - the wavelength of the slow wave) can be calculated. The results of measurement of the retardation are compared graphically with the theoretical results. The difference (about 10%) is explained by the error in the resonance model and by the assumptions of the approximate theory. The coupling impedance was measured by the absorption method. The absorbing element, consisting of a glass rod with a layer of Aqua-dag, was calibrated in coaxial and cylindrical resonators. The results of measurement of the coupling impedance (accuracy about 15%) are shown graphically together with the theoretical curve. The retardation changes only from 9 to 11
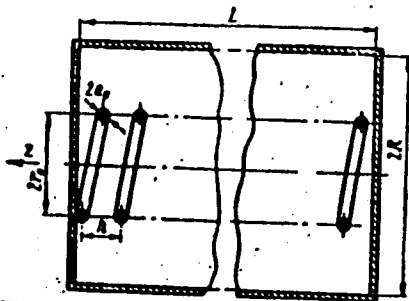
Card 2/3

Investigation of ....

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S/535/60/000/125/006/008
E033/E362

over a wide frequency band but the coupling impedance falls from hundreds of ohms at low frequencies to a few ohms at high frequencies.

There are 4 figures and 3 Soviet-bloc references.

Fig. 1:

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S/535/60/000/125/007/008
E033/E362

9,4230

AUTHORS: Voskresenskiy, D.I. and Granovskaya, R.A.

TITLE: Investigation of a slow-wave system of the "spiral-channel" type

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960. Elektromagnitnyye zamedlyayushchiye sistemy; metodika izmereniya elektricheskikh kharakteristik. 98 - 103

TEXT: Results of measuring the retardation and coupling impedance of a slow-wave system of the spiral-channel type are given in this article. These values were measured on a resonance model (Fig. 2), consisting of a section of the spiral, short-circuited by metallic end-walls. A standing wave could be excited in the model by a finger through an aperture in one end-wall and the resonance-indicator was coupled to the model by a similar finger in the other end-wall. A number of radial and azimuthal apertures in the end-walls permitted the field-distribution to be investigated. Obtaining the dispersion curve was complicated by side resonances and by different types of waves which could be excited in the model. The number of slow
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E033/E362

semi-waves m was determined by moving a cylindrical element,
coated with an absorbing layer of Aqua-dag, along the z
(longitudinal) axis of the system. The absorption method was
used to obtain the value of the coupling impedance. The
absorbing element, a small phenopolystyrol cylinder with its
side surface coated with Aqua-dag was calibrated in a standard
cylindrical resonator. The experimental dispersion curve is
produced and compared with the curve obtained from a dispersion
equation, previously derived by the present authors (Ref. 4 -
Izvestiya VUZov MVO SSSR, razdel Radiotekhnika, no. 3, 1959).
For values of the retardation factor from 4 to 7, the difference
between theoretical and experimental results does not exceed
10%. The group velocity was found from the dispersion curves.
The curve of measured coupling impedance values is compared with
a theoretical curve, calculated by a formula previously obtained
by the authors (Ref. 4). In the region of small retardation
values, the theoretical and experimental curves are very close
to each other but differ considerably as the retardation γ
increases. This difference is explained by the errors in the
experiment due to inhomogeneity of the field along the length
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/335/60/000/125/007/008

Investigation of ....

of the absorbing element and by the assumptions of the theory.
The coupling impedance falls from a high value to less than
10 ohms for γ - 0 . A feature of the "spiral-channel" is the
variation in the field distribution with increase of retardation
and this makes the passage of the electron beam down the central
channel inconvenient. The electron beam should be passed
through special orifices in the walls of the channel located
at anti-nodes of the electric field but as these anti-nodes
will be displaced with change of frequency, the interaction
between the beam and the field will be considerably reduced
with change in frequency. The extent of this displacement was
investigated and a curve showing the dependence of the anti-
node position on frequency was plotted. The curves show that
above a particular frequency very little further displacement
occurs. Therefore, providing the positions of the orifices are
correctly selected, effective interaction between the beam and
the field can be ensured. There are 6 figures and 4 references:
2 Soviet-bloc and 2 non-Soviet-bloc. The two English-language
references mentioned are: Ref. 1 - Lester M. Field - Some

Card 3/4

Investigation of ....

3C745
S/535/60/000/125/007/008
E033/E362

Slow-wave Structures for Travelling-wave Tubes. PIRE, January,
1949, pp. 34-40;   Ref. 3 - Joseph E. Rowe - A Wideband Structure
for High-power Travelling-wave Tubes. Trans. IRE (Professional
Group on Electron Devices), December, 1953, pp. 55 - 56.

Fig. 2: - Resonance model.

1, 2 - apertures for investigating
the field-distribution;
3 - Slow-wave system;
4 - cable to indicator.

Спициальная
каналка
Spiral
Channel
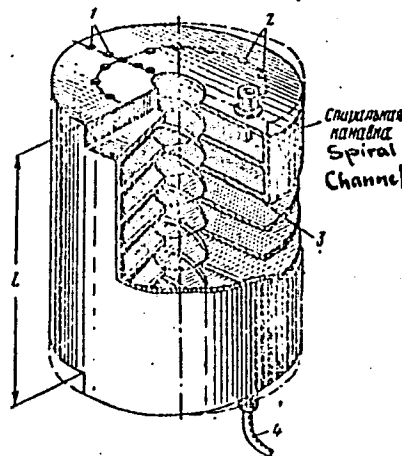
Card 4/4

GRANOVSKAYA, R., dotsent

Decision of the scientific council of the Radio Engineering Depart-
ment of the Sergo Ordzhonikidze Institute of Aviation in Moscow.
Izv. vys. ucheb. zav.; radiotekh. 4 no.4:507-508 Jl-Ag '61.
(MIRA 14:11)

1. Sekretar' Uchenogo Soveta radiotekhnicheskogo fakul'teta
Moskovskogo aviatsionnogo instituta.
(Radio)

L 11042-66   EWT(l)/EEC-4/EEC(t)/EEC(b)-2/FCS

ACCESSION NR: AT4044231   S/2535/64

AUTHORS: D I R A Granovskaya

Moscow Aviatsionny*y Institut Trudy no 151 1964 Skaniruyushchiye

ABSTRACT: The authors note that in frequency-scanning antennas the radiating elements located directly on the driving beam-positioning system (for example, slotted radiators cut in one of the walls of a rectangular waveguide). The

L 11245-65
ASSOCIATION NR: AT4046231

systems for scanning antennas with a radiating surface of special configuration
arrangement of such systems is complicated considerably in the case
the angular-frequency characteristics of the linear

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ACCESSION NR: AT4046231

In connection with the fact that it is difficult to achieve the required dispersion char-
acteristics of the beam-positioning systems, systems with somewhat different character-
istics are provided that these characteristics [...] design
characteristics at at least two points in the working waveband. Errors in the [...]
[...] of the linear arrays, which arise in the remaining portion of the band,
[...] of the array and the scanning angle [...] in the
[...]
[...] main positioning systems for the antennas [...] are the
[...] of the dielectric-filled coaxial line [...] lines and

[...]   Moskovskiy aviatsionny*y institut (Moscow Aviation Institute)

                      ENCL: [...]   [...]
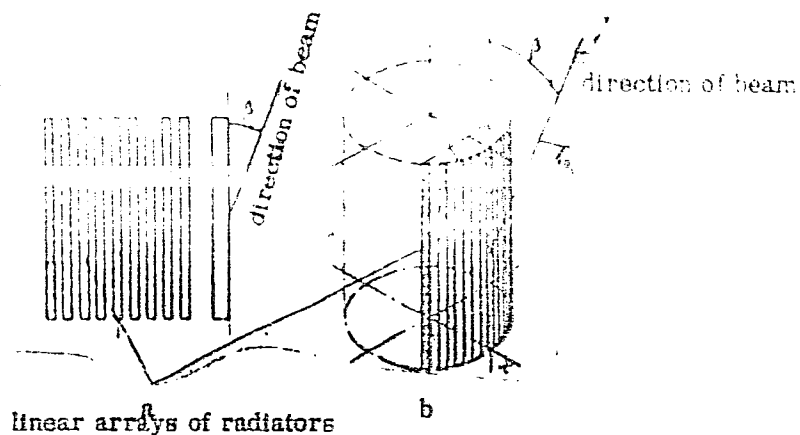
ACCESSION NR: AT4046231   ENCL: 01

linear arrays of radiators   b

a) plane two-dimensional array: b) two-dimensional array located on
surface of plane "fan-shaped" two-dimensional array of two-dimensional
conical surface

L 11015-65
ACCESSION NR: AT4046231   ENCL: 02

direction of excitation

Fig 2 a & b -

a) plane two-dimensional
array; b) two-dimensional
array located on cylindrical
surface; c) plane "fan-
shaped" two-dimensional
array; d) two-dimensional
array located on conical
surface
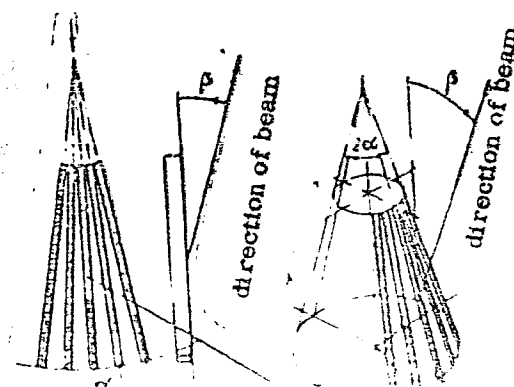
BABAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.; BAZHENOVA, N.I., inzh.; DAN'SHINA,
N.M., inzh.

Using the industrial method for the sulfonation of alcohols from un-
saponifiables II with sulfuric acid. Masl.-zhir.prom. 28 no.8:34-35
Ag '62.   (MIRA 17:2)

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i zhirnykh
spirtov.

BABAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.; ZHIVOTKOVA, L.V.;
     BONDARENKO, I.S.

     Removal of suspended matter from neutralized wastes in the
     manufacture of synthetic fatty acids. Masl.-zhir. prom. 29
     no.3:32-34 Mr '63.   (MIRA 16:4)

     1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i
     zhirnykh spirtov.
                (Acids, Fatty)   (Industrial wastes)

SHKURENKO, P.L., inzh.; BABAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.

Purification of barometric condenser waters. Masl.-zhir.prom. 29
no.1:34-35 Ja '63.   (MIRA 16:2).

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i
zhirnykh spirtov.
          (Distillation)   (Water—Purification)

GRANOVSKAYA, R.M.

Electromagnetic fields of the brain. Trudy Len. ob-va est. 72
no.1:111-115 '61.   (MIRA 15:3)
                    (BRAIN) (ELECTROPHYSIOLOGY)

G-RAILOVSKAYA, N M

ACCESSION NR: AP4002550   S/0247/63/013/006/1108/1110

AUTHOR: Smetankin, G. N.

TITLE: Third Volga Area Conference of physiologists, biochemists, and
pharmacologists

SOURCE: Zhurnal vy*sshey nervnoy deyatel'nosti,·v. 13, no. 6, 1963,
1108-1110

TOPIC TAGS: bionics, closed cybernetic system, neuron modeling,
pharmacological stimulant, regeneration process, dibazol, thyroidine,
pentoxyl, neuron, cybernetics, central nervous system, biological
modeling

ABSTRACT: The Third Volga-Area Conference of physiologists, biochem-
ists, and pharmacologists was held in Gorky in June 1963. One hundred
and thirty papers were presented. Experimental results and clinical
data were reported on various problems in the physiology, biochemistry,
and pharmacology of the central nervous system. Problems concerning
the cardiovascular system, respiration, endocrine system, and the
digestive system were also discussed. A. N. Malakhov and M. Yu.Ul'yanov

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ACCESSION NR: AP4002550

reported on studies being conducted in the field of bionics and gave
an analysis of the methods used in the investigations. V. A. Ganzen
and R. M. Granovskaya reported on a radioelectronic device which makes
possible the mathematical simulation of neuron properties, using the
neuron as a functional unit, and of functions characteristic of inter-
acting neurons. N. P. Sinitsyn reported on the stimulating action of
vitamins B_1 and B_{12}, and of dibazol, thyroidine, pentoxyl, and ATP on
the regenerative processes in the myocardium.

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 07Jan64   ENCL: 00

SUB CODE: AM   NO REF SOV: 000   OTHER: 000

Card 2/2

GANZEN, V.A.; GRANOVSKAYA, R.M.

     Some frequency transformations studied on the models of neu-
rons. Vest. LGU 18 no.21:155-160 '63   (MIRA 16:12)

GRANOVSKAYA, R.M.; GANZEN, V.A.

Conduction of a nervous impulse in the stem and phalangeal
preparation of a sciatic nerve of a frog during excitation by
square pulses. Trudy Len. ob-va est. 74 no. 1:81-84 '63.
                                        (MIRA 17:9)

GRANOVSKAYA, R.M.; GANZEN, V.A.

Role of a motor link in the visual system during the identification
of an object by its outward contour. Vop. psikhol. 11 no.1:66-82
Ja-F '65.   (MIRA 18:4)

1. Otdeleniya psikhologii Moskovskogo gosudarstvennogo universiteta
i Vychislitel'nyy tsentr Leningradskogo gosudarstvennogo universiteta.

EWT(d)/EED-2/EWP(1)   Pq-4/Pg-4/Pk-4   [JP(c)   BB/GG

AT: 3C1644   ACCESSION NR: AP3004847062

Granovskaya, R. M.; Ganzen, V. A.; Krivova, G. Ya.

Digital-computer simulation of the memorization process in a very simple network

Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychisli-tel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3,

nervous system, neuron system,

A memory is defined in this article as the property of the nervous system to receive, store, and recall information by means of a specific way during operation. The network considered is in the form of a matrix of neurons each of which has 10 inputs, one output and an internal part. The signals at the inputs and outputs as well as at any instant of time are of two values, zero or 1. An expression is written for the state of the neuron output at the instant t + 1 when a set e of signals is applied to

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ACCESSION NR: AT5001654

the system at the instant t (the synapse delay time is used as the unit of time).
Experiments were made with this matrix on the "Ural" electronic computer, on
... the dependence of the quality of memory ...
... the receptor layer, and ... memory ...
... as functions of the number of memories, ...
... inputs, the neuron threshold, and the ...
... each of the input receptors ... are ...
... situated with an increasing number of memories stored ... in the matrix, as a
... given number ... for ... fali-stored ... in ...
... and for a neuron impulse. The calculated ... problem ... ...
The matrix had a tendency to ... with ... and ... ... is
... ...
... ... shown that the ... ...
... ... has ... figures and ... formulas.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63   ENCL: 00   SUB CODE: LS, OP

ER REF SOV: 000   OTHER: 003
Card 2/2 ml

L 22877-65
EED-2/EWT(d)/T/EWP(1)   Pg=4/Pk=4/Po=4/Pq=4   IJP(c)   GG/BB
ACCESSION NR: AT5001656   s/3040/64/000/003/0069/0079

AUTHOR: Granovskaya, R. M.; Ganzen, V. A.

TITLE: Algorithm for the recognition of contour images

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychisli-
tel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3,
1964, 69-79

TOPIC TAGS: character recognition, reading machine, outline recognition, servo-
mechanism   16 C

ABSTRACT: The authors describe an algorithm for the recognition of plane figures
-- their external contour. The system is based on some information concerning
the structure and functions of biological systems. It is pointed out that the
human biological shape recognition process is similar in some respect to scan-
ning of the contour and results in formation of a system of sequential sensing
signals. Human recognition consists of starting out with minimum accuracy, which
is increased by using additional attributes until the problem is solved with suf-
ficient accuracy. The algorithm described here employs a varying number of

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ACCESSION NR: AT5001656

attributes, depending on the required recognition accuracy. The method consists
in the following: A servomechanism searches for the object in its field of view
and tracks the contour of the object (defined as an arbitrary connective region
on a plane, bounded by a smooth closed line). The tracing of the contour begins
at an arbitrary point and is in a counterclockwise direction, concluding upon re-
turning to the initial point. The response of the servomechanism is proportional
to the curvature of the contour at each point. The system is sensitive to chan-
ges in the curvature of the contour. Auxiliary attributes may be topological
features, the position of the initial point, the orientation of the contour in an
external coordinate syste, and the properties of the digital code used for data
transmission. The number and composition of the attributes employed, as well as
the quantization levels, can be different. Examples are presented of recognition
of Russian and Latin letters and simple geometrical figures. Tables of codes
based on several attributes (up to 3) are presented. Orig. art. has: 3 figures
and 6 tables.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63   ENCL: 00   SUB CODE: DP

NR REF SOV: 010   OTHER: 001
Card 2/2

L 22876-65   EEC-4/EED-2/EEC(k)-2/EWG(c)/EEC(g)/EWT(d)/EWP(1)   Pg-4/Pk-4/Po-4/Pg-4
ACCESSION NR: AT5001657 IJP(c)   GG/BB   S/3040/64/000/003/0084/0090

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

TITLE: Apparatus for the calculation and simulation of neurons

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychisli-
tel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3,
1964, 84-90

TOPIC TAGS: neuron modeling, central nervous system, neuron threshold, neuron
function

ABSTRACT: Unlike most other mathematical models of neurons, in which the neuron
is regarded as a logical converter, the apparatus described here makes it possible
to simulate neuron operation by taking additional account of the operation of a
neuron as a converter of a space-time pulsed code. The apparatus is intended for
the investigation of the conversion of such a space-time pulse code in neuron
models of different types and under different operating conditions. The prici-
ples underlying the construction of the machine were obtained from a representa-
tion of the physiological data and structure and function of the neuron, obtained

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ACCESSION NR: AT5001657   /

by the authors elsewhere (Vestnik LGU, No. 4, 1963). The neuron is regarded as a
multiple-pole network with several inputs and one output. The input signals are
binary, and the neuron has a threshold which can vary in time. A block diagram of
the apparatus is shown in Fig. 1 of the enclosure. The input sequences of stimuli,
the law governing the variation of the threshold with time, and the law governing
the forgetting of the stimuli are all inserted by means of a punched tape through
a reading unit or by means of a keyboard. The different units of the apparatus
are described. An approximate calculation shows that the apparatus can be in-
vestigated for about 10^7 different typical conditions. It is claimed that the
apparatus will help decide which functions of the central nervous system are de-
termined by the structure and operation of individual neurons, and which are de-
termined by the neuron network as a whole. No special programming is required,
and the results are presented in a form similar to an ordinary oscillogram.
Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 23Feb63   ENCL: 01   SUB CODE: LS, DP

NR REF SOV: 002   OTHER: 008

Card 2/3

L 22976-65
ACCESSION NR: AT5001657   ENCLOSURE: 01
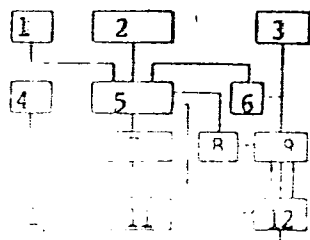
Fig. 1. Block diagram of set-up.

1 - Keyboard, 2 - reading unit, 3 - printer block,
4 - readout system, 5 - input reginster, 6 - delay
line, 7 - memory unit, 8 - threshold variation unit,
9 - threshold detector, 10 - weight variation unit,
11 - adder, 12 - control unit.

Card 3/3

GRANOVSKAYA, R.M.; GANZEN, V.A.

Mechanisms of a passive inhibition of the neuron. Vest. LGU
20 no.3:142-145 '65.
(MIRA 18:2)

L 61640-65   EWT(d)/EED-2/EWP(1)   Pq-4/Pg-4/Pk-4   LJP(c)   BB/GG/GS/JXT(BF)

ACCESSION NR: AT5014726   UR/0000/65/000/000/0179/0186

AUTHOR: Granovskaya, R. M., Ganzen, V. A.

TITLE: One of the possible network models possessing an associative memory

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile memory states. Leningrad, Izd-vo Energiya, 1965, 179-186

TOPIC TAGS: associative memory model, network model memory, plastic neuron network memory, addressless memory model

ABSTRACT: Although the principles of associative memories have long been known to psychologists (see, e.g., Yu. L. Samarin, Ocherki psikhologii uma, Ed. APN, 1962), the physiological mechanisms on which such memories are based are still obscure. The present paper in- . . . of plastic . . . properties of an . . .

. . .

. . .

and the network operations during the recording of words, reading of words, time associa- tions created between words in two alphabets, and the time associations between words of the same alphabet. Orig. art. has: 10 formulas and 3 figures.

Card 1/2

L 61640-65
ACCESSION NR: AT5014726

ASSOCIATION: None

SUBMITTED: 20Jan65   ENCL: 00   SUB CODE: DP

NO REF SOV: 004   OTHER: 003

Card 2/2

L 04898-67   EWT(d)/EWT(1)   IJP(c)   GG/BB/JXT(BF)/GD

ACC NR: AT6022678   SOURCE CODE: UR/0000/66/000/000/0102/0107

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.   53

ORG: none   β+1

TITLE: A self-instructing system for the recognition of a certain class of visual patterns

SOURCE: Moscow. Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya
avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966,
102-107

TOPIC TAGS: pattern recognition, character recognition, self organizing system, optic
scanning, reading machine

ABSTRACT: A self-instructing system which recognizes objects on the basis of their external
configuration is described. The system is based on certain information regarding the structure
and functions of biological analyzer systems. The role of the external configuration of objects
in the recognition process is analyzed and is shown to involve an adaptation process as one of
the physiological mechanisms essential to the execution of this operation by the human organism.
In the system considered, fundamentally a letter-recognition servosystem, the primary attrib-
utes playing an secondary role in those cases, for example, in which figures consisting of un-

Card   1/2

L 04898-67

ACC NR: AT6022678

joined segments are to be distinguished (such as the Cyrillic letters yery bl, yo ё, and
i kratkoye ǔ). A block-diagram of such a system is analyzed and its operation is explained.
The basic principle employed is one of servo scanning tied to a system of natural coordinates.
A brief description is given of the machine code and the technique of initial teaching. Ex-
amples of the recognition of objects of certain sets (printed letters of the Latin and Russian
alphabets, digits, and geometric figures) are presented, and on this basis the properties of
the system are illustrated. It is shown that through the use of certain physiological data a
system can be developed capable of performing a part of the recognition functions of man.
Orig. art. has: 2 tables and 3 figures.

SUB CODE: 06,09/   SUBM DATE: 02Mar66/   ORIG REF: 007

Card 2/2

ACC NR: AT6022619   (A)   SOURCE CODE: UR/3040/65/000/004/0084/0099

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

ORG: none

TITLE: Several problems in the processing and storage of information on line drawings

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 4, 1965, 84-99

TOPIC TAGS: recognition process, information processing, information storage, nervous system

ABSTRACT: A method for processing information derived from the identification of objects by their external contours is described. The ability of a memory system to classify objects is studied on the basis of principles derived from the study of the human nervous system: 1) the reaction to a change in any parameter of an input signal which may, in special cases, be taken to be proportional to the time derivative of the signal; 2) the system is capable of integrating parameter changes in time and its reaction is proportional to the summation so derived; 3) there is a threshold value such that the reaction at the system's output differs according to whether the signal is above or below the threshold value. The stages of contour recognition are described through the expression of the contour in the form of a code based on quantities assign-

Card 1/2

. L 08830-67

ACC NR: AT6022619   /

ed to forms of sections of the contour. Contour features, hence their codes, are dis-
tinguished according to properties of invariance with respect to certain transforma-
tions as primary or secondary. Resulting code trees for matching (indexing) input con-
tour codes with memory codes (recognition) are discussed with respect to threshold
conditions and summation operations. Orig. art. has: 22 formulas, 5 figures.

SUB CODE: 09,12,06/ SUBM DATE: none/   ORIG REF: 003/   OTH REF: 002

Card 2/2   nst

KAZIMIRSKIY, Ya.M., starshiy nauchnyy sotrudnik; ZVEREVA, T.A., starshiy
    nauchnyy sotrudnik; GRANOVSKAYA, R.Ya., mladshiy nauchnyy sotrudnik;
    PYATIGORSKAYA, T.I., starshiy nauchnyy sotrudnik

Technical and economic effectiveness of the steam-heating, and
mechanical methods of preparing potatoes for drying. Trudy VNIIKOP
no.9:26-52 '59.   (MIRA 14:1)
                        (Potatoes--Drying)

MOROZENSKIY, L.M.; GRANOVSKAYA, _ Ya.

Processing of dried squash and cauliflower. Kons. i ov. prom.
13 no.6:26-29 Je '58.   (MIRA 11:5)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
          (Squash--Drying) (Califlower--Drying)

GRANOVSKAYA, R.Ya.

Determining the color of dried cabbage during storage. Kons.i ov.prom.
14 no.2:38-39 F '59.   (MIRA 12:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
                (Cabbage) (Colorimetry)

BUGROVA, L.N.; GRANOVSKAYA, R.Ya.

Improved method for determining the ascorbic acid content of
food products. Kons. i ov. prom. 14 no.6:43-44 Je '59.
(MIRA 12:8)

(Food--Analysis) (Ascorbic acid)

MOROZENSKIY, L.M.; GRANOVSKAYA, R.Ya.

Testing of the steam band blancher developed by Shcheklin at
the Dmitriyevsk Dried Vegetable Plant. Kons.i ov.prom. 18
no.5:8-12 My '63.   (MIRA 16:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
    (Makeyevka—Canning industry—Equipment and supplies)

GRANOVSKAYA, Sh.G. and CHERNOGOROV, I.A.

"Results of Sleep Therapy in Acute Insuffiency of Coronary Circulation."
Klin.Med.,30, no.1, 1952/

Monthly List of Russian Accessions, Library of Congress, May '52, Unclassified.

GRANOVSKAYA, S. Ye.

Granovskaya, S. Ye. - "Use of hawthorn for high blood pressure
diseases," Vracheb. delo, 1949, No. 2, columns 139-44

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

GRANOVSKAYA, S.Ye., kandidat meditsinskikh nauk

Studying bromine metabolism in patients with peptic ulcer. Vrach.
delo no.6:649-651 Je '57.   (MIRA 10:8)

1. Gospital'naya terapevticheskaya klinika (zav. - prof. P.I.Sharlay)
Khar'kovskogo meditsinskogo instituta
      (PEPTIC ULCER)   (BROMINE METABOLISM)

SHARLAY, R.I., prof.; POCHEPTSOV, V.G., kand.med.nauk; GRANOVSKAYA, S.Ye.,
kand.med.nauk; KOZLOVA, O.M.

On the effect of hexonium in seizures of renal colic. Sov.med. 23
no.9:114-116 S '59.   (MIRA 13:1)

1. Iz kafedry gospital'noy terapii lechebnogo fakul'teta (zav. - prof.
R.I. Sharlay) Khar'kovskogo meditsinskogo instituta (dir. - dotsent
N.F. Kononenko) i klinicheskoy bol'nitsy No.27 (glavnyy vrach A.G.
Chipyzhenko).
                    (URINARY CALCULI ther.)
                    (AUTONOMIC DRUGS ther.)

GRANOVSKAYA, S.Ye., kand.med.nauk

Treatment of endarteritis obliterans into hexonium. Trudy Khar.
med. inst. no.52:91-95 '59.   (MIRA 14:11)
         (ARTERIES--DISEASES)   (HEXONIUM)

GRANOVSKAYA, S.Ye., kand.med.nauk

Mechanism of hexonium action in ulcer cases. Vrach.delo no.3:
140-141 Mr '63.   (MIRA 16:4)

1. Kafedra gospital'noy terapii (zav. - prof. R.I.Sharlay
[deceased]) lechebnogo fakul'teta Khar'kovskogo meditsinskogo
instituta.
         (HEXONIUM)   (ALIMENTARY CANAL--ULCERS)

GRANOVSKAYA, S.Ye., kand. med. nauk

Use of hexonium in renal colic. Sov. med. 27 no.3:126-127 Mr '64.
(MIRA 17:11)

1. Kafedra gospital'noy terapii lechebnogo fakul'teta (zav. - prof.
L.T. Malaya) Khar'kovskogo meditsinskogo instituta.

GRANOVSKAYA, V. SH.

LC

USSR/Chemistry - Ammonia Synthesis   May 51

PA 190T9

"Change of the Reaction Order in Ammonia Synthesis.
1.   Kinetics of the Reaction Over an Osmium Catalyst,"
S. L. Kiperman, V. Sh. Granovskaya, Lab Chem Kinet-
ics, Moscow, Phys Chem Inst imeni L. Ya. Karpov

"Zhur Fiz Khim" Vol XXV, No 5, pp 557-564

Studied kinetics of NH_3 synthesis over an Os cata-
lyst experimentally. At 550-600° the kinetics cor-
respond to M. I. Tyemkin and V. M. Pyzhev's eq
("Zhur Fiz Khim" Vol XIII, 851, 1939) with alpha =
0.5. Energy of activation of NH_3 decompn in this
range is 41,600 cal. On removal from equil condi-
tions (brought about by lowering the temp), the

LC   190T9

USSR/Chemistry - Ammonia Synthesis (Contd)   May 51

order of the reaction changes and can then be ex-
pressed by omega = $k_1 P N_2$ where omega is the rate
of reaction.   Activation energy in the range 400-
4500 is 39,200 cal. At 5000 the kinetics change as
shown by eqs in the text. Results confirm theore-
tical conclusions drawn in prior work.

GRANOVSKAYA, V. SH.

IA 24219

USSR/Chemistry - Synthesis of Ammonia   Nov 52

"The Change in the Reaction Order in the Synthe-
sis of Ammonia: II. Research Into the Kinetics
of the Reaction on an Iron Catalyst, at a Point
Removed From Equilibrium," S. L. Kiperman and
V. Sh. Granovskaya, Physicochem Inst Imeni L. Ya.
Karpov, Moscow

"Zhur Fiz Khim" Vol 26, No 11, pp 1615-1618

The authors obtained data regarding the kinetics
of ammonia synthesis on two specimens of Fe cat-
alyst at atm pressure. If there is a significant

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departure from equil, when there is a small vol
of ammonia gas, the order of the reaction changes.
Where the yields of ammonia are relatively small,
the kinetics of the reaction are represented by
the eq, $W = k_1 PN_2$, that is, the rate of the re-
action does not depend on the partial pressures
of H and ammonia as is the case on an Os cata-
lyst. Author says that the change in the se-
quence of the reaction of ammonia synthesis,
caused by the change in the degree to which the
surface of the catalyst is covered with N confirms
previously developed ideas.

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GRANOVSKAYA-TSVETKOVA, A.M.

Mauriac's syndrome in children.   Trudy TSIU 78:77-87 '65.
                                                (MIRA 18:9)
1. Kafedra endokrinologii (zav. prof. Ye.A. Vasyukova) TSentral'-
nogo instituta usovershenstvovaniya vrachey.

GRANOVSKY, B. L.   PA 4T95

USSR/Mercury   1945
    Lamps, arc

"Characteristic Electric Oscillations of Low-pressure
Mercury Arcs," B. L. Granovsky and L. N. Bykhovskaya
4 pp

"CR Acad Sci" Vol XLIX, No 5

Study of characteristic natural electric oscillations
of mercury arcs at vapor pressures of 0.2 to 5.0-mm
Hg, to clarify the nature of undamped electric os-
cillations arising in circuits having neither capa-
city nor inductance.

                                                    4T95

GRANOVSKY, B. L.   PA 4T99

USSR/Vacuum Tubes   1945
    Oscillations - damping
    Discharges, electric

"Generation of High-power Electric Oscillations by
 Low-pressure Discharge," B. L. Granovsky, T. A.
 Suetin, 4 pp

"CR Acad Sci" Vol XLIX, No 6

Development of a dielectric diaphragm to separate the
anode region from the cathode region in discharge
tubes permitting the authors to obtain undamped elec-
tric oscillations whose power is limited only by
heat loss from the tube.

                                                    4T99

GRANOVSKII, B. L.; BAUM, V. A.; BUDRIN, D. V; VASHENKO, A. I.; GLINKOV, M. A.; KITAY, B. I.
KUZMIN, M. A.; MIKHAYLENKO, A. Ya.; NAZAROV, I. S.; PLOTNIKOV, L. A.; SEMIKIN, I. D.;
TAYS, N. U.; TROIB, S. G.

Metallurgiueskie Peui (Metallurgical Furnaces), 975 p., 1951.

GRANOVSKIY, B. L. (Engr.); KRAPUCHIN, V. V.; MIKHAYLENKO, A. Ya. (Docent)

"Furnaces for the Plants of Nonferrous Metallurgy," from the book
Metallurgical Furnaces (Metallurgicheskiye Pechi) Metallurgizdat, 1951.

BEREGOVSKIY, V.Ye.; VASILENKO, M.I.; VELIER, R.L.; VERBLOVSKIY, A.M.;
VERNER, B.F.; VOYDALOVSKAYA, Ye.N.; VOL'SKIY, A.N.; GLAZKOVSKIY, A.A.;
GRAMOVSKIY, B.L.; GREYVER, N.S.; GUDIMA, N.V.; DOLGOPOLOVA, V.I.;
KARCHEVSKIY, V.A.; KOVACHEVA, Ye.B.; KUDRYAVTSEV, P.S.; LEBEDEV, A.K.;
LISOVSKIY, D.I.; LIKHNITSKAYA, Z.P.; MATVEYEV, N.I.; MEL'NITSKIY, A.N.;
MIRONOV, A.A.; MIKHEYEVA, A.A.; MURACH, N.N.; OKUE', A.B.; OL'KHOV,N.P.;
OSIPOVA, T.B.; PAVLOV, V.P.; ROTINYAN, A.L.; SAZHIN, N.P.; SEVRYUKOV,N.N.;
SIDOROV, P.M.; SOBOL', S.I.; KHEYFETS, V.L.; TSEYNER, V.M.;
SHAKHNAZAROV, A.K.; SHEYN, Ya.P.; SHEREMET'YEV, S.D.; SHERMAN, B.P.;
SHISHKIN, N.N.; SHLOPOV, A.P.

Georgii Ivanovich Blinov. TSvet.met. 28 no.6:62 N-D '55.

(MIRA 10:11)

(Blinov, Georgii Ivanovich, 1911-1955)

GRANOVSKIY, B.L.; DIYEV, N.P.; ZUBAREV, V.I.; KARCHEVSKIY, V.A.; KLUSHIN, D.N.;
    MAKOVSKIY, G.M.; MIRONOV, A.A.; OL'KHOV, N.P.; PARFANOVICH, B.V.;
USHAKOV, K.I.; SHAKHNAZAROV, A.K.

Electric smelting for matte in copper metallurgy; a reply to
L.M.Gazarian. TSvet.met. 28 no.1:33-41 Ja-F '55. (MIRA 10:10)
    (Copper--Electrometallurgy) (Gazarian, L.M.)

MITKALINNYY,V:evolod Ivanovich; KRAFUKHIN, Vsevolod Valer'yanovich;
        VASHCHENKO, Aleksandr Ivanovich; GRANOVSKIY, Boris L'vovich;
        GLINKOV, M.A., prof., doktor tekhn. nauk, red.

        [Metallurgical furnaces; an atlas] Metallurgicheskie pechi;
        atlas. Izd.2., perer. Moskva, Metallurgiia, 1964. 219 p.
        ___[Data for the atlas "Metallurgical furnaces"] K atlasu
        "Metallurgicheskie pechi." 45 p.   (MIRA 17:9)

GRANOVSKIY, B.L.

Introduce the use of natural gas in nonferrous metallurgy. TSvet.met.
38 no.7:24-28 Jl '65.   (MIRA 18:8)

GRANOVSKIY, B. S., Cand Tech Sci -- (diss) "Selection of type and ~~basic~~

of ~~evaluation~~ of sinking lifting installations." Mos, 1958.   14 pp

(Min of Higher Education USSR, Mos Mining Inst im I. V. Stalin), 120

copies (KL, 17-58, 108)

GRANOVSKIY, B.S., inzh.; MIRSKIY, M.I., inzh.

Multirope suspension of mining equipment. Shakht. stroi.
no.6:17-19 '58.   (MIRA 11:6)
  (Shaft sinking) (Mine hoisting) (Winches)

GRANOVSKIY, B.S., kand. tekhn. nauk; FURMAN, V.B., inzh.; VULIS, N.L., inzh.

Built-in power cable for supplying power and regulating the
operation of borer mechanisms in core drilling equipment for
shafts. Shakht. stroi. 8 no.10:16-19 O '64.   (MIRA 17:12)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy
institut podzemnogo i shakhtnogo stroitel'stva.

L 12911-66   EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c)   JD/HM

ACC NR: AP6000953   SOURCE CODE: UR/0286/65/000/022/0040/0040

AUTHORS: Yermanok, Ye. Z.; Rodin, I. Z.; Shuvarikov, V. M.; Granovskiy, B. T.

ORG: none

TITLE: A method for contact arc welding of T-joints. Class 21, No. 176336

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 40

TOPIC TAGS: welding, welding electrode, welding equipment, welding technology, arc welding

ABSTRACT: This Author Certificate presents a method for arc welding T-joints, as between rods and plates. To facilitate the process and to improve the quality of the welded joint, the heading is produced in the course of welding with the help of an electrode provided with a groove.

SUB CODE: 13/   SUBM DATE: 15Jun63

Card 1/1   UDC: 621.791..762.1

L 16194-63   EWT(1)/EWG(k)/BDS/ES(w)-2--AFFTC/ASD/ESD-3/AFWL/IJP(C)/
SSD--Pz-4/Pi-4/Pab-4/Po-4--AT
ACCESSION NR: AR3005160   8/0058/63/000/006/D102/D102

SOURCE: RZh. Fizika, Abs. 6 D694

AUTHORS: Artamonov, G. P.; Granovskiy, E. I.; Koka, P. A.

TITLE: Plasmatron - high-temperature source of spectrum excitation

CITED SOURCE: Tr. Kazakhsk. n.-i in-ta mineral'n. syr'ya, vy*p. 2, 1960,
285-294

TOPIC TAGS: Plasmatron, arc channel, spectrum excitation, argon, nitrogen,
carbon dioxide

TRANSLATION: The operating principle and the construction of a plasmatron and of
a device for introduction of a solution in a plasma jet are described. The connec-
tion between the diameter of the arc channel and the parameters that determine
this diameter (absolute pressure of the supplied liquid, centrifugal pressure of
the rotating liquid, or gas, pressure on the internal surface of the channel,
density of liquid or gas, velocity of the liquid at the inlet and on the surface
of the channel) is made more precise. It is established that the complex profile
of the angular velocity of the rotating liquid, chosen for the calculations, gives

Card 1/2

L 16194-63
ACCESSION NR: AR3005160

the best agreement with experiment. Ar, N_2, and CO_2 were used for the cooling and compression of the arc, and CO_2 was used to pulverize the solution. It was found that the best gas for stable operation of the plasmatron is Ar at 0.4--0.6 atmospheres for an arc current 17--25 amperes. A tentative conclusion is reached that the results of analyses made with the aid of a plasmatron display good reproducibility. E. Azizov.

DATE ACQ: 15Jul63   SUB CODE: PH   ENCL: 00

Card 2/2

GRANOVSKIY, E.I.

Use of the plasma light source for the spectrochemical
analysis of mineral raw materials. Zav. lab. 31 no.8:
962-965 '65.
(MIRA 18:9)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya.

BOCHAROV, Grigoriy Grigor'yevich;GRANOVSKIY, G., red.

[Calculating the cost of industrial production] Kal'-
kulirovanie sebestoimosti promyshlennoi produktsii.
Moskva, Finansy, 1964.   162 p.   (MIRA 17:11)

GRANOVSKII, GERBERT IVANOVICH.

Fasonnye reztsy. Moskva, Mashgiz, 1947. 159 p. illus.

Forming tools.

DLC: TJ1230.G69

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of COngress, 1953.

GRANOVSKIY, GERBERT IVANOVICH.

Kinematika rezaniia. Moskva, Mashgiz, 1948. 199 p. illus.

DLC: TJ1230.G67

(Kinematics of cutting.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
     Congress, 1953.

GRANOVSKIY, G.I.

Metallorezhushchii instrument
(Metalcutting tool). Moskva, Mashgiz, 1952. 278 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

GRANOVSKIY, G. I.

PHASE I   TREASURE ISLAND BIBLIOGRAPHICAL REPORT   AID 747 - I

BOOK   Call No.: AF657796
  Author: GRANOVSKIY, G. I., Dr. of Tech. Sci., Prof.
  Full Title: METAL-CUTTING TOOLS: DESIGN AND USE HANDBOOK
               2nd ed., rev. and enlarged
  Transliterated Title: Metallorezhushchiy instrument: konstruktsiya
                         i ekspluatatsiya, spravochnoye posobiye.
                         Izd. 2-e, isprav. i dopol.
PUBLISHING DATA
  Originating Agency: None
  Publishing House: State Scientific and Technical Publishing House
                     of Machine-Building Literature (MAShGIZ)
  Date: 1954   No. pp.: 315   No. of copies: 20,000
  Editorial Staff: Gliner, B. M., Eng. - Editor
                    Kovan, V. M., Dr. of Tech. Sci., Prof. - Appraiser
                    Karganov, V. G., Eng. - Editor of Graphic Data
PURPOSE: Designed for engineers, machinist and foremen in the metal-
    working industry, this book may also be used as a textbook by
    students in technical schools.
TEXT DATA
  Coverage: This book describes the design, construction and use of
    metal-cutting tools for boring, drilling, broaching, milling,
    reaming, thread-cutting, and drawing and gear-cutting machines
    and turret lathes, both automatic and semi-automatic, regular and
                              1/2

Metallorezhushchiy instrument: konstruktsiya i   AID 747 - I
ekspluatatsiya, spravochnoye posobiye. Izd. 2-e,
isprav. i dopol.

    high-speed machines. It provides fundamental information on
various types of cutting tools, their characteristics, materials,
geometrical form, use and ways of cutting and their wear and
tear. Interchangeable parts, machines for sharpening tools, and
the various dynamometers for measuring the cutting force exerted
by metal tools are also discussed. This second edition of the
book is supplemented with description of the newest methods used
in machining metal parts. The latest designs of cutting tools
for 'power cutting and high speed' cutting, developed by the
scientific research institutes and individuals (e.g., Kolesov,
V. L.) are added. The text is filled with drawings of cutting
tools and their parts. There are 276 tables in the book and a
great number of OST and GOST standards on cutters and the
materials used for their construction.

. No. of References: 93, Russian, 1936-1954 (with two sources dated
   1870 and 1893).
Facilities: All-Union Scientific and Research Institute (VNII,
   and the Scientific Research Bureau of Technical Standards
   (NIBTN).   2/2

GRANOVSKIY, G.I.

GRANOVSKIY, G.I.; GRUDOV, P.P.; KRIVOUKHOV, V.A.; LARIN, M.N.; MALKIN,
I.Ya., TIKHONOV, A.Ya., tekhnicheskiy redaktor

[Metal cutting] Rezanie metallov. Pod red. V.A.Krivoukhova. Moskva.
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 472 p.
    (Metal cutting)   (MLRA 8:4)

GRANOVSKIY, G. I., ED.

N/5
662.339
.G721

  Rezaniye Metallov I Instrument; Sbornik Statey (Cutting of Metals and Instruments; Collection of Articles) Moskva, Mashgiz, 1955.
  173 P. Illus., Diagrs., Tables.
  At Head of Title: Moscow. Vyssheye Tekhnicheskoye Uchilishche.
  Includes Bibliographies.

GRANOVSKIY, G.I., professor, doktor tekhnicheskikh nauk, redaktor; BRODSKIY,
    M.G., inzhener, redaktor; BALANDIN, A.F., inznener, redaktor izda-
    tel'stva; SHMEL'KINA, S.I., tekhnicheskiy redaktor

    [Design of cutting tools] Konstruirovanie rezhushchego instrumenta.
    Pod red. G.I.Granovskogo. Moskva, Gos. nauchno-tekhn. izd-vo mashino-
    stroit. lit-ry, 1956. 141 p.   (MLRA 9:9)

    1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy
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            (Cutting tools)

GRANOVSKIY, G.I.

ANTIPOV, K.F., inzhener; BALAKSHIN, B.S., doktor tekhnicheskikh nauk, professor; BARYLOV, G.I., inzhener; BEYZEL'MAN, R.D., inzhener; BERDICHEVSKIY, Ya.G., inzhener; BOBKOV, A.A., inzhener,. KALININ, M.A., kandidat tekhnicheskikh nauk; KOVAN, V.M., doktor tekhniche- skikh nauk, professor; KORSAKOV, V.S., doktor tekhnicheskikh nauk; KOSILOVA, A.G., kandidat tekhnicheskikh nauk; KUDRYAVTSEV, N.T., doktor khimicheskikh nauk, professor; KURYSHEVA, Ye.S., inzhner LAKHTIN, Y$_u$.M., doktor tekhnicheskikh nauk, professor; NAYERMAN, M.S., inzhener; NOVKOV, M.P., kandidat tekhnicheskikh nauk; PARTY- SKIY, M.S., inzhener; PEREPONOV, M.N., inzhener, POPILOV, L.Ya. inzhener; POPOV, V.A., kandidat tekhnicheskikh naukl SAVERIN, M.M. doktor tekhnicheskikh nauk, professor; SASOV, V.V., kandiat tekhni- cheskikh nauk; SATEL', E.A., doktor tekhnicheskikh nauk, professorl SOKOLOVSKIY, A.P., doktor tekhnicheskikh nauk, professor, (deceased) STANKEVICH, V.G., inzhener; FRUMIN, Yu.L., inzhener; KHRAMOY, M.I., inzhener, TSEYTLIN, L.B., inzhener; SHUKHOV, Yu.V., kandidat tekhnicheskikh nauk; BABKIN, S.I., kandidat tekhnicheskikh nauk; VOLKOV, S.I., kandidat tekhnicheskikh nauk; GORODETSKIY, I.Ye., doktor tekhnicheskikh nauk, professorl GOROSHKIN, A.K., inzhener; DOSCHATOV, V.V., KAndidat tekhnicheskikh nauk; ZAMALIN, V.S., inzhener; ISAYEV, A.I., doktor tekhnicheskikh nauk; professor; KEDROV, S.M., kandidat tekhnicheskikh nauk; MALOV, A.N., kandidat tekhnicheskikh nauk; MARDANYAN, M.Ye. inzhener; PANCHENKO, K.P., kandidat tekhniche- skikh nauk; SEKRETEV, D.M., inzhener; STAYEV, K.P., kandidat tekhni- cheskikh nauk; SYROVATCHENKO, P.V., inzhener; TAURIT, G.E., inzhener; EL'YASHEVA, M.A. kandidat tekhnicheskikh, nauk,

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     GRANOVSKIY, G.I., redaktor; [unclear], redaktor; CHARNKO, D.V., redaktor; [unclear] [deceased]; SOKOLOVA, T.F., [unclear]

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GRANOVSKIY, G.I., prof., doktor tekhn.nauk; BUSHUYEV, S.M., tokar'-
skorostnik; CHUDINOV,; BYKOV, P.B., tokar', deputat Verkhovnogo
Soveta SSSR; YEMEL'YANOV, L.V.

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ANTIPOV, K.F., inzh.; BALAKSHIN, B.S., prof., doktor tekhn.nauk; BARYLOV, G.I., inzh.; BEYZEL'MAN, R.D., inzh.; BERDICHEVSKIY, Ya.G., inzh.; BOBKOV, A.A., inzh.; KALININ, M.A., kand.tekhn.nauk; KOVAN, V.M., prof., doktor tekhn.nauk; KORSAKOV, V.S., doktor tekhn.nauk; KOSILOVA, A.G., kand.tekhn.nauk; KUDRYAVTSEV, N.T., prof., doktor khim.nauk; KURYSHEVA, Ye.S., inzh.; LAKHTIN, Yu.M., prof., doktor tekhn.nauk; NAYERMAN, M.S., inzh.; NOVIKOV, M.P., kand.tekhn.nauk; PARIYSKIY, M.S., inzh.; PEREPONOV, M.N., inzh.; POPILOV, L.Ya., inzh.; POPOV, V.A., kand.tekhn.nauk; SAVERIN, M.M., prof., doktor tekhn.nauk; SASOV, V.V., kand.tekhn.nauk; SATEL', E.A., prof., doktor tekhn.nauk; SOKOLOVSKIY, A.P., prof., doktor tekhn.nauk [deceased]; STANKEVICH, V.G., inzh.; FRUMIN, Yu.L., inzh.; KHRAMOY, M.I., inzh.; TSEYTLIN, L.B., inzh.; SHUKHOV, Yu.V., kand.tekhn.nauk; MARKUS, M.Ye., inzh., red. [deceased]; GRANOVSKIY, G.I., red.; DEM'YANYUK, F.S., red.; ZUBOK, V.N., red.; MALOV, A.N., red.; NOVIKOV, M.P., red.; CHARNKO, D.V., red.; KARGANOV, V.G., inzh., red. graficheskikh rabot; SOKOLOVA, T.F., tekhn.red.

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[Time norms in general machinery manufacturing for applying
coats of lacquer; large, medium, and small scale production]
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GRANOVSKIY, G. I.

25(1,5)   PHASE I BOOK EXPLOITATION   SOV/2367

Moscow. Vysshaya partiynaya shkola. Kafedra promyshlennogo
    proizvodstva i stroitel'stva

Dostizheniya nauki i tekhniki i peredovoy opyt v promyshlennosti
    i_stroitel'stve. vyp. 4: Tekhnologiya mashinostroyeniya
    /obrabotka metallov rezaniyem/ (Achievements in Science and
    Technology and Advanced Practices in Industry and Civil Engin-
    eering. Nr 4: Machine-building Technology /Metal Cutting/)
    Moscow, Izd-vo VPSh i AON pri TsK KPSS, 1959. 189 p. 20,000
    copies printed.

Ed. (Title page): G.I. Pogodin-Alekseyev, Doctor of Technical
    Sciences, Professor; Eds. (Inside book): A.G. Kokoshko and
    R.D. Beyzel'man; Tech. Ed.: K.M. Naumov.

PURPOSE: This collection of papers is intended for engineers,
    technicians, and students associated with metal cutting.

COVERAGE: This collection of papers deals with;scientific achieve-
    ments and progressive methods in metal cutting; improvements in
    the technology of machinery construction; technical progress
Card 1/4

Achievements in Science (Cont.)   SOV/2367

    in machine-tool and instrument construction; and designs for
the automation of metalworking machine tools and transfer
machines. No personalities are mentioned. There are no ref-
erences.

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Razumov, N.A. The Moscow Council of the National Economy as a
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GRAHOVSKIY, Gerbert Ivanovich, prof., doktor tekhn.nauk

Scientific achievements and advanced experience in metal cutting.
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(MIRA 12:10)

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    retsenzent; BROMLEY, M.F., kand. tekhn. nauk, red.; SMIRNOVA, G.V.,
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[Removing dust and chips in machining brittle materials] Udalenie pyli
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Avtomatizatsiya mashinostroitel'nykh protsessov. t. III: Obrabotka
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   chine-Building Processes. v. 3: Metal Cutting and General Auto-
   mation Problems) Moscow, Izd-vo AN SSSR, 1960. 296 p. (Series:
   Its: Trudy, t. 3) 4,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
   Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House:
   V. A. Kotov; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for technical
   personnel concerned with the automation of the machine industry.

COVERAGE: This is Volume III of the transactions of the Second
   Conference on the Full Mechanization and Automation of Manufac-
   turing Processes in the Machine Industry, held September 25-29,

Card 1/7

Automation of Machine-Building Processes (Cont.)   SOV/5291

1956. The transactions have been published in three volumes.
Volume I deals with the hot pressworking of metals, and volume
II, with the actuation and control of machines. The present
volume deals with the automation of metal machining and work-
hardening, and with general problems encountered in automa-
tion. The transactions on the automation of metal-machining
processes were published under the supervision of F. S. Dem'-
yanok and A. M. Karatygin, and those on the automation of work
hardening processes, under the supervision of E. A. Satel' and
M. O. Yakobson. No personalities are mentioned. There are no
references.

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Yemel'yanov, A. D. Basic Principles of Determining the
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Ioannesyants, M. Ya. Investment per Unit of [Rated] Horse-
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    [Effect of the angle of inclination of the main cutting edge
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Vest.mashinostr. 43 no.9:45-51 S '63.   (MIRA 16:10)